What is claimed is:

1.   A method for identifying opportunities in a radio network comprising:

listening for a first period of time;

detecting a first busy slot;

listening for a second period of time;

detecting a second busy slot;

listening for a third period of time;

detecting a third busy slot;

recognizing a sequence of the first, second, and third busy slots as a function of time;

performing a Randomized Hough Transform on the sequence;

generating a histogram based on the Randomized Hough Transform;

identifying peaks in the histogram;

determining whether the peaks correspond to a known radar; and

identifying an opportunity to transmit.

2.   The method of Claim 1, wherein the method further comprises listening for at least a fourth period of time and detecting at least a fourth busy slot.

3.   The method of Claim 1, wherein the determining step

determines whether the peaks correspond to a known radar in

limited bandwidth.

4.   A device (607) for identifying opportunities in a radio

network comprising:

> a) a source (604);
>
> b) a processor (601) for performing a computation,
>
>   said processor comprising:
>
>   a means for performing an Randomized Hough
>
>   Transform, a means for generating a histogram based
>
>   on the Randomized Hough Transform,
>
>   a means for identifying peaks in the histogram, and
>
>   a means for identifying opportunities to transmit
>
> c) a memory (608); and
>
> d) at least one listening device (605).

5.   The device (607) of Claim 4, wherein the device further

comprises a Medium Access Control (602), a physical layer

(603), and at least one transmitter (606).

6.   The device of Claim 4, wherein the listening device (607)

is an IEEE 802.11 slot mechanism.